



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,355	08/02/2000	Tetsuya Nishi	1046.1028D2/DSG	9683

21171 7590 08/27/2002

STAAS & HALSEY LLP  
700 11TH STREET, NW  
SUITE 500  
WASHINGTON, DC 20001

EXAMINER

SHAFER, RICKY D

ART UNIT PAPER NUMBER

2872

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/631,355

Applicant(s)

NESHE ET AL

Examiner

R.D. SHAFFER

Group Art Unit

2872

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 months MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 5/29/02

☒ This action is FINAL.

- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 23 - 38 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 23 - 31 is/are allowed.

☒ Claim(s) 32 - 38 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

Art Unit 2872

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.117(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.117(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/29/02 has been entered.
2. Applicant's arguments filed 5/29/02 have been fully considered but they are not persuasive.

Applicant argues that each of the references to Healey et al ('140), Yamamoto et al ('944) and Dejule et al ('445) fail to teach that switching light requires controlling the switching means of only one of the plurality of polarization control optical switches.

The examiner is of the opinion that the use of the language "comprising" is open-ended and does not exclude the presence of additional unrecited elements and/or steps and thus the claim language of controlling only one of the switching means fails to patentably distinguish over the applied prior art mentioned above.

Moreover, each of the polarization control optical switches of the above mentioned prior art has an "on" or an "off" state and the state of the switch is controlled in order to obtain a desirable output.

Art Unit 2872

3. Claims 32-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 32-38 are vague, indefinite and fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As understood by the examiner each of the polarization control optical switches of applicant's invention has an "on" or an "off" state and thus all of the switches are substantially controlled in order to obtain a selected output.

Moreover, the use of the language switching light requires controlling the switching means of only one of the plurality of polarization control optical switches would appear to be misdescriptive due to the fact that the other switches must be also controlled in order to obtain a selected output.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or

Art Unit 2872

(2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 32 is rejected under 35 U.S.C. 102(b) as being anticipated by Healey et al ('140).

To the extent the claim is definite, Healey et al discloses an optical space switch comprising a plurality of polarization control optical switches (S1, S2, S3) connected together between a plurality of inputs (I) and a corresponding plurality of outputs (O), wherein each of said polarization control optical switches comprises a polarization controller [(C1, R1), (C2, R2), (C3, R3)] and a switching element [(D1, D2, D3) or (B1, B2, B3)] for changing the optical path of light of the light from said controller, note figures 1-5, wherein switching light from one of said plurality of inputs to one of said plurality of outputs requires controlling only one switch element (R1, R2, R3) provided in the respective one of said plurality of polarization control optical switches.

6. Claims 33-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Healey et al ('140).

To the extent the claims are definite, Healey et al discloses an optical space switch comprising a plurality of polarization control optical switches (S1, S2, S3), each having a plurality of inputs (1) and a plurality of outputs (0) connected together as a NXN matrix, wherein N=1, each of the polarization control switches comprises a polarization controller [(C1, R1), (C2, R2), (C3, R3)] and a switching element/means [(D1, D2, D3) or (B1, B2, B3)] for selectively

Art Unit 2872

outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-5, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching means (R1, R2, R3) in the matrix.

7. Claims 32-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al ('944).

To the extent the claims are definite, Yamamoto et al discloses an optical space switch comprising a plurality of polarization control optical switches (A, B, C), each having a plurality of inputs (1) and a plurality of outputs (0) connected together as a NXN matrix, wherein each of the polarization control switches comprises a polarization controller (not shown) and a switching element/means [(2A) and (3, 6, 7, 12A 21B, 21C, 22)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 17A-17B, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching means (2A) in the matrix.

8. Claims 32-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Dejule et al ('445).

Art Unit 2872

To the extent the claims are definite, Dejule et al discloses an optical space switch comprising a plurality of polarization control optical switches (S1, 1...S3, 3), each having a plurality of inputs (K1-K12) and a plurality of outputs (L1-L12) connected together as a NXN matrix, each of the polarization control switches comprises a polarization controller (not shown) and a switching element/means [(F1, 1...F3, 3) and (B1, 1...B3, 3)] for selectively outputting the polarization changed light to a respective output of the respective polarization control optical switch, note figures 1-3, wherein switching light from a respective polarization control optical switch in a first column of the matrix to a respective output of a respective polarization control optical switch in the last column of the matrix requires controlling only one of the switching means (F1, 1...F3, 3) in the matrix.

9. Claims 23-31 are allowed.

10. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See **MPEP** § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

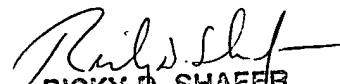
Art Unit 2872

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication should be directed to R D Shafer at telephone number (703) 308-4813.

R D SHAFER/pj

08/16/02

  
RICKY D. SHAFER  
PATENT EXAMINER  
ART UNIT 2872